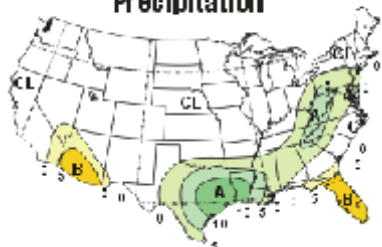




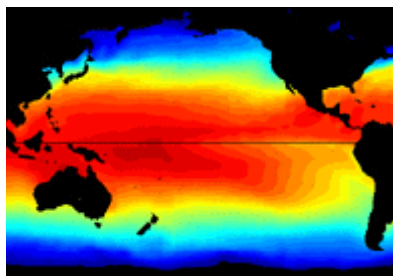
Forest fire (Summer 2000)

Climate Outlook December 2000 - February 2001 Precipitation



Map shows area of the country that is expected to experience departures from normal for precipitation during the next 30 days.

<http://www.cpc.ncep.noaa.gov>



Sea surface temperature



The IRI Monell Building

1315 East West Hwy
Silver Spring, MD 20910
301-713-1671
www.oar.noaa.gov

Office of Global Programs

Observing, understanding & predicting global climate

What does the Office of Global Programs do for the nation?

The NOAA Climate and Global Change (C&GC) Program leads the Nation in the advancement of research on the dynamic global climate system. The C&GC Program is managed by the Office of Global Programs (OGP), which is responsible for the NOAA contribution to evolving regional, national, and international endeavors designed to improve our ability to observe, understand, assess, predict, and respond to changes in the global environment. The Program has been an essential element of the US Global Change Research Program (USGCRP) since its inception in the late 1980s and has generated critical scientific insights related to the natural earth system. A decade of success, most notably in the area of El Niño prediction, has demonstrated the benefits of a strong partnership between NOAA and external investigators; about 60% of the more than \$60 million annual appropriation supports extramural research, the remainder supports climate research in NOAA laboratories. NOAA's efforts are designed to provide a predictive understanding of the climate system and its modes of variability and to advance the application of this information in climate-sensitive sectors through a suite of process research, observations and modeling, and application and assessment activities. Thus, this research supports NOAA's service and natural resource stewardship mission and offers tangible benefits to the Nation in the form of scientific understanding and predictive capacities.

Specifically, OGP supports

- operational in-situ and satellite climate observations with an emphasis on oceanic and atmospheric dynamics, circulation, and chemistry;
- understanding and predicting ocean-land-atmosphere interactions, the global hydrological cycle, and the role of global transfers of carbon dioxide among the atmosphere, ocean and terrestrial biosphere;
- improvements in climate modeling, prediction, and information management capabilities;
- the projection and assessment of climate variability across multiple time-scales;
- the study of the relationship between the natural climate system and society and the development of methodologies for applying climate information to real problems of social and economic consequences (e.g., water resources, health consequences, etc.); and,
- archiving, management, and dissemination of data and information useful for global change research.

OGP Accomplishments

- The International Research Institute (IRI) for Climate Prediction at the Lamont-Doherty Earth Observatory of Columbia University in Palisades, New York was established in 1999. OGP will support this critical university partnership. ***Payoffs: A world-class, interdisciplinary resource for global change understanding and prediction now exists. The Institute has already made enormous contributions to the understanding and prediction of the second-only-to-the seasons climate phenomena known as the El Niño-Southern Oscillation (ENSO), with a special recent emphasis in Africa.***

- OGP was responsible for the management of the Tropical Ocean Global Atmosphere (TOGA) Program. The Tropical Atmosphere Ocean (TAO) array of moored buoys developed by NOAA's Pacific Marine Environmental Laboratory that span the equatorial Pacific Ocean was the most enduring and valuable legacy of this program. The TAO array is used by the IRI, NOAA, the World Meteorological Organization (WMO), and most of the relevant national and international research community to detect and monitor El Niño and La Niña events. OGP is also actively involved in the provision of a similar array in the Atlantic and the Indian Oceans. **Payoffs: This array is the ocean equivalent of the Hubble Telescope. It provides accurate, near-to-real-time measurements of critical oceanic and atmospheric variables**
- New programs based on the TOGA model include Climate Variability (CLIVAR), Pan American Climate Studies (PACS) and Eastern Pacific Investigation of Climate Processes in the Coupled Ocean-Atmosphere System (EPIC). EPIC is a five year process study designed to improve the description and understanding of key ocean features, the intertropical convergence zone, and stratus cloud decks in the eastern Pacific. Accomplishments to date include expanding the upper air sounding network in the eastern Pacific; enhancing the 95E W TAO line to measure heat, moisture and momentum fluxes; and, producing new high-resolution satellite-derived estimates of surface wind fields, rainfall, water vapor, cloudiness, and sea surface temperatures (SSTs). **Payoffs: The ground-breaking TOGA science legacy lives on through new programs designed to provide fine scale information for model synthesis and development, as well as scientific breakthroughs in our fundamental understanding of the coupled ocean-atmosphere system.**

What's next for OGP?

NOAA will implement a Climate Services program to help reduce impacts from, and adapt to, climate variations and change. The C&GC Program will provide much of the scientific underpinnings for this endeavor. In making the transition from the continuing results of our research programs to operational products, a number of benefits will be readily apparent. Estimates of the value of preparedness in areas such as California and Peru for the 1997-8 El Niño suggest that one half of the likely (unprepared) cost in the absence of any advance warning was avoided. In the future, we should be able to anticipate such climate-related events as the extremely dry conditions and (subsequent) intense summer 2000 fires in the West.

NOAA is a major contributor to multi-agency planning efforts by both the carbon cycle research community and the water cycle research community to design respective, integrated plans. Both research disciplines have advanced to the point where rapid, more efficient progress can only be made if they are independently fully integrated nationally and internationally. These planning efforts have been critical to the organization of new USGCRP foci on the carbon and water cycles for fiscal years 2001 and beyond.

NOAA/OGP will also target research resources on climate variability of longer timescale than seasonal to interannual. Both the Pacific Decadal Oscillation (PDO) and the North Atlantic Oscillation (NAO) may provide new climate information highly relevant to the prediction of weather patterns over North America and Europe.

Budget and Staff:

OGP is a \$ 75.6 million program office (\$68.2 million of NOAA base) with a staff of 57, including 33 federal employees, 4 contract employees and 20 cooperative-agreement employees.



For more information, contact:

Dr. J. Michael Hall
Suite 1225
1100 Wayne Avenue
Silver Spring, MD 20910
Phone: (301) 427-2089 x136
<http://www.ogp.noaa.gov>